

ABSTRACT

The subject of the present invention is to provide a β -lactam acylase protein having high activity, a gene
5 coding for said β -lactam acylase protein, a recombinant
vector having said gene, a transformant containing said
recombinant vector, and a method of producing a β -lactam
antibiotic such as amoxycillin using said β -lactam acylase.
A β -lactam acylase gene of Stenotrophomonas maltophilia was
10 cloned, the DNA base sequence and the amino acid sequence
expected therefrom was determined, and a Stenotrophomonas
 β -lactam acylase gene was obtained. This gene was found to
code for a protein with a molecular weight of about 70 kDa
and having β -lactam acylase activity, and could efficiently
15 produce amoxycillin without being inhibited by phenylacetic
acid, etc. Furthermore, by modification of the amino acid
sequence, a protein which can more efficiently produce
amoxycillin could be obtained.

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